Appl. No. 10/734,195

Date of Response: December 5, 2005

Amendments to the Specification:

Please amend the paragraph beginning at page 5, line 3, as follows:

The invention provides a high-density multi-chip module package and the manufacturing method thereof which forms a plurality of conductive plugs in an integrated circuit substrate to electrically connect a plurality of chips and increase chip density and decrease the size of the package structure. FIG. 2~6 show a manufacturing flow of forming a miltichip module package according to a first embodiment of this invention. First of all, referring to FIG. 2, a semiconductor substrate 100 is provided and an insulating layer 110 is formed on a first surface 102 of the semiconductor substrate 100, wherein the semiconductor substrate 100 can be a silicon substrate. Next, a multilayer interconnection structure 120 with at least one integrated circuit device is formed on the insulating layer 110. The multilayer interconnection structure 120 has a plurality of first bonding pads 131 and second bonding pads 132 formed respectively on a first third surface 122 and a second fourth surface 124 of the multilayer interconnection structure 120. Then a grinding and polishing process is performed to remove a portion of the semiconductor substrate 100 from a second surface 104 of the semiconductor substrate 100 so as to reduce the thickness of the The thickness of the semiconductor semiconductor substrate 100. substrate 100 is about 10 micron meter to about 500 micron meter after the grinding and polishing process. The grinding and polishing process preferably comprises a chemical mechanical polishing process.

Please amend the paragraph beginning at page 7, line 18, as follows:

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Referring to FIG. 6, the high-density multichip module structure is bonded to a package substrate. First of all, a package substrate 500 having a plurality of fourth bonding pads 510 is provided. Next a plurality of second bumps 520 are bonded to the first bonding pads 131 on the first third surface 122 of the multilayer interconnection structure. Finally, the high-density multichip module structure is bonded to a package substrate 500 through the bonding between the second bumps 520 and the fourth bonding pads 510 by a flip chip process. The multichip module structure shown in FIG. 6 is one embodiment which has the passive chip 250, the active chips 200 and 300.